

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): An inline screw plasticizing injection apparatus which plasticizes and injects a thermoplastic resin pellet including long glass fibers having a length substantially the same as a length of the pellet and aligned in a longitudinal direction of the pellet, the injection apparatus comprising:

a screw having a diameter not less than 100 mm;

a hollow heating cylinder in which the screw is provided;

a screw head coupled to the screw through a shaft;

a weir plate fixed at a rear end of the shaft; and

a check ring slidably fitted around the shaft so as to be capable of reciprocating between the screw head and the weir plate in a space defined by the shaft and the heating cylinder so that a molten resin path is formed by the heating cylinder, the screw head, the shaft, the check ring and the weir plate;

wherein

a ratio of a length (L) / a diameter (D) in the screw is set to 18 through 24,

a length (Lf) of a supplying portion of the screw is set to 10 through 14 times the diameter (D),

a groove depth (hf) of the supplying portion of the screw is set to be not less than 13 mm,

a groove depth (hm) of a measuring portion of the screw is set to be not less than 8 mm,
and

a width in a direction orthogonal to a flow direction of the molten resin in the molten resin path formed by the weir plate and the check ring is set to 3 through 6 % of the diameter (D) of the screw, and

a width of the check ring is set to 0.3 through 0.4 times the diameter (D) of the screw.

2. (currently amended): The inline screw plasticizing injection apparatus according to Claim 1, wherein an angle of θ between end faces of the weir plate and the check ring and a ~~vertical~~ horizontal axis is set to 70 through 90°.

3. (original): The inline screw plasticizing injection apparatus according to Claim 1, wherein a projection provided on a front side of the check ring is fitted to a notch of the screw head and in rotating the screw, the check ring is rotated along therewith.

4.-5. (canceled).